

Covestro Makrolon® 8315 Polycarbonate, 10% Glass Filled

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, 10% Glass Filled

Material Notes:

MVR (300 °C/1.2 kg) 6.0 cm³/10 min high viscosity easy release injection molding available in opaque colors only Preprocessing Max. Water content

Order this product through the following link:

http://www.lookpolymers.com/polymer_Covestro-Makrolon-8315-Polycarbonate-10-Glass-Filled.php

Physical Properties	Metric	English	Comments
Density	1.27 g/cc	0.0459 lb/in ³	ISO 1183
	1.08 g/cc	0.0390 lb/in ³	Melt
	@Temperature 300 °C	@Temperature 572 °F	
Water Absorption	0.26 %	0.26 %	Similar to ISO 62
Moisture Absorption at Equilibrium	0.10 %	0.10 %	Similar to ISO 62
Linear Mold Shrinkage, Flow	0.0070 cm/cm	0.0070 in/in	ISO 294-4,2577
Linear Mold Shrinkage, Transverse	0.0050 cm/cm	0.0050 in/in	ISO 294-4,2577
Melt Flow	6.5 g/10 min	6.5 g/10 min	ISO 1133
	@Load 1.20 kg, Temperature 300 °C	@Load 2.65 lb, Temperature 572 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	50.0 MPa	7250 psi	ISO 527-1/-2
Elongation at Break	8.5 %	8.5 %	ISO 527-1/-2
Tensile Modulus	3.90 GPa	566 ksi	ISO 527-1/-2
Impact	3800	3800	Puncture - maximum force (N); ISO 6603-2
	3000	3000	
	@Temperature -30.0 °C	@Temperature -22.0 °F	Puncture - maximum force (N); ISO 6603-2
Puncture Energy	25.0 J	18.4 ft-lb	ISO 6603-2
	10.0 J	7.38 ft-lb	
	@Temperature -30.0 °C	@Temperature -22.0 °F	ISO 6603-2

Thermal Properties	Metric	English	Comments
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CTE, linear, Parallel to Flow Thermal Properties	40.0 µm/m-°C Metric	22.2 µin/in-°F English	ISO 11359-1/-2 Comments
CTE, linear, Transverse to Flow	65.0 µm/m-°C	36.1 µin/in-°F	ISO 11359-1/-2
Specific Heat Capacity	1.60 J/g-°C	0.382 BTU/lb-°F	Melt
Thermal Conductivity	0.191 W/m-K	1.33 BTU-in/hr-ft ² -°F	Melt
Deflection Temperature at 0.46 MPa (66 psi)	144 °C	291 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	138 °C	280 °F	ISO 75-1/-2
Vicat Softening Point	147 °C	297 °F	50°C/h 50N; ISO 306
Flammability, UL94	HB	HB	IEC 60695-11-10
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	V-2	V-2	IEC 60695-11-10
	@Thickness 3.00 mm	@Thickness 0.118 in	
Oxygen Index	27 %	27 %	ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+13 ohm-cm	>= 1.00e+13 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	IEC 60093
Dielectric Constant	3.2	3.2	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	3.2	3.2	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	36.0 kV/mm	914 kV/in	IEC 60243-1
Dissipation Factor	0.0010	0.0010	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.0090	0.0090	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	175 V	175 V	IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	300 °C	572 °F	Injection Molding; ISO 294

Processing Properties	Metric	English	Comments
Mold Temperature	80.0 - 130 °C	176 - 266 °F	
	110 °C	230 °F	Injection Molding; ISO 10724
Ejection Temperature	140 °C	284 °F	
Injection Velocity	200 mm/sec	7.87 in/sec	ISO 294

Descriptive Properties	Value	Comments
Availability	North America	
Eff. thermal diffusivity (m ² /s)	1.11E-07	
Feature	Release agent	
Form	Pellets	
Process	Injection Molding	
	Other Extrusion	

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